



## Contents of Volume 109

### NUMBER 1

PROXIMATE BASIS OF VARIATION IN CAROTENOID PIGMENTATION IN MALE HOUSE FINCHES. <i>Geoffrey E. Hill</i> .....	1
BILL COLOR, REPRODUCTION AND CONDITION EFFECTS IN WILD AND DOMESTICATED ZEBRA FINCHES. <i>Nancy Tyler Burley, Donald K. Price, and Richard A. Zann</i> .....	13
PHYLOGENETIC, TAXONOMIC AND BIOGEOGRAPHICAL IMPLICATIONS OF GENETIC, MORPHOLOGICAL, AND BEHAVIORAL VARIATION IN FRANCOLINS (PHASIANIDAE: FRANCOLINUS). <i>Timothy M. Crowe, Eric H. Harley, Mariola B. Jakutowicz, Joris Komen, and Anna A. Crowe</i> .....	24
NATURAL AND INDUCED REMANENT MAGNETISM IN BIRDS. <i>Holly H. Edwards, Gary D. Schnell, Robert L. DuBois, and Victor H. Hutchison</i> .....	43
ROOSTING BEHAVIOR OF PREMIGRATORY DUNLINS ( <i>CALIDRIS ALPINA</i> ). <i>Colleen M. Handel and Robert E. Gill, Jr.</i> .....	57
CHARACTERIZATION AND PHYLOGENETIC SIGNIFICANCE OF A REPETITIVE DNA SEQUENCE FROM WHOOING CRANES ( <i>GRUS AMERICANA</i> ). <i>Jamie Love and Prescott Deininger</i> .....	73
GENETIC STRUCTURE OF BLUE DUCK ( <i>HYMENOLAIMUS MALACORHYNCHOS</i> ) POPULATIONS REVEALED BY DNA FINGERPRINTING. <i>Susan J. Triggs, Murray J. Williams, Stephen J. Marshall, and Geoffrey K. Chambers</i> .....	80
TEST OF THE ECOLOGICAL BASIS OF COOPERATIVE BREEDING IN RED-CKOADED WOODPECKERS. <i>Jeffrey R. Walters, Carole K. Copeyon, and J. H. Carter, III</i> .....	90
INDIVIDUAL VARIATION IN FRUIT CHOICE BY AMERICAN ROBINS ( <i>TURDUS MIGRATORIUS</i> ). <i>Robin E. Jung</i> .....	98
BROOD SIZE AND THERMAL ENVIRONMENT INFLUENCE FIELD METABOLISM OF NESTLING YELLOW-EYED JUNCOS. <i>Kimberly A. Sullivan and Wesley W. Weathers</i> .....	112
EFFECTS OF WIND AND ILLUMINATION ON BEHAVIOR AND METABOLIC RATE OF AMERICAN GOLD- FINCHES ( <i>CARDUELIS TRISTIS</i> ). <i>George S. Bakken and Kimberly F. Lee</i> .....	119
MITOCHONDRIAL-DNA VARIATION IN THE POLYTYPIC ALASKAN SONG SPARROW. <i>Matthew P. Hare and Gerald F. Shields</i> .....	126
PHYLOGENY AND RATES OF MOLECULAR EVOLUTION IN THE APHELOCOMA JAYS ( <i>CORVIDAE</i> ). <i>A. Townsend Peterson</i> .....	133
SHORT-TERM EFFECTS OF HURRICANE GILBERT ON TERRESTRIAL BIRD POPULATIONS ON JAMAICA. <i>Joseph M. Wunderle, Jr., D. Jean Lodge, and Robert B. Waide</i> .....	148
THE EVOLUTIONARY SIGNIFICANCE OF LIFETIME REPRODUCTIVE SUCCESS. <i>Bertram G. Murray, Jr.</i> .....	167
DNA-DNA HYBRIDIZATION EVIDENCE OF PHYLOGENETIC RELATIONSHIPS AMONG MAJOR LINEAGES OF PARUS. <i>Frederick H. Sheldon, Beth Slikas, Maureen Kinnarney, Frank B. Gill, E. Zhao, and Bengt Silverin</i> .....	173
IN MEMORIAM: MILTON BERNHARD TRAUTMAN, 1899-1991. <i>Harold F. Mayfield</i> .....	186
IN MEMORIAM: BERNHARD RENSCH, 1900-1990. <i>Ernst Mayr</i> .....	188
IN MEMORIAM: NORMAN FREDRICK SLOAN, 1934-1989. <i>Jerome A. Jackson</i> .....	189
IN MEMORIAM: JAMES T. TANNER, 1914-1991. <i>Ben B. Coffey, Jr.</i> .....	189
IN MEMORIAM: HERMANN RAHN, 1912-1990. <i>Carol M. Vleck</i> .....	190
SHORT COMMUNICATIONS AND COMMENTARIES	
Asynchronous polygyny in the House Wren ( <i>Troglodytes aedon</i> ). <i>Michael S. Quinn and Geoffrey L. Holroyd</i> .....	192
Basic technique for preparation of down for examination with the scanning electron microscope. <i>Roxie C. Laybourne, Beth Ann Sabo, and Ann Morningstar</i> .....	195
Sexual selection and the evolution of extravagant traits in birds: Problems with testing good-genes models of sexual selection. <i>Ian L. Jones</i> .....	197



## Contents of Volume 109

### NUMBER 1

PROXIMATE BASIS OF VARIATION IN CAROTENOID PIGMENTATION IN MALE HOUSE FINCHES. <i>Geoffrey E. Hill</i> .....	1
BILL COLOR, REPRODUCTION AND CONDITION EFFECTS IN WILD AND DOMESTICATED ZEBRA FINCHES. <i>Nancy Tyler Burley, Donald K. Price, and Richard A. Zann</i> .....	13
PHYLOGENETIC, TAXONOMIC AND BIOGEOGRAPHICAL IMPLICATIONS OF GENETIC, MORPHOLOGICAL, AND BEHAVIORAL VARIATION IN FRANCOLINS (PHASIANIDAE: <i>FRANCOLINUS</i> ). <i>Timothy M. Crowe, Eric H. Harley, Mariola B. Jakutowicz, Joris Komen, and Anna A. Crowe</i> .....	24
NATURAL AND INDUCED REMANENT MAGNETISM IN BIRDS. <i>Holly H. Edwards, Gary D. Schnell, Robert L. DuBois, and Victor H. Hutchison</i> .....	43
ROOSTING BEHAVIOR OF PREMIGRATORY DUNLINS ( <i>CALIDRIS ALPINA</i> ). <i>Colleen M. Handel and Robert E. Gill, Jr.</i> .....	57
CHARACTERIZATION AND PHYLOGENETIC SIGNIFICANCE OF A REPETITIVE DNA SEQUENCE FROM WHOOING CRANES ( <i>GRUS AMERICANA</i> ). <i>Jamie Love and Prescott Deininger</i> .....	73
GENETIC STRUCTURE OF BLUE DUCK ( <i>HYMENOLAIMUS MALACORHYNCHOS</i> ) POPULATIONS REVEALED BY DNA FINGERPRINTING. <i>Susan J. Triggs, Murray J. Williams, Stephen J. Marshall, and Geoffrey K. Chambers</i> .....	80
TEST OF THE ECOLOGICAL BASIS OF COOPERATIVE BREEDING IN RED-CKOADED WOODPECKERS. <i>Jeffrey R. Walters, Carole K. Copeyon, and J. H. Carter, III</i> .....	90
INDIVIDUAL VARIATION IN FRUIT CHOICE BY AMERICAN ROBINS ( <i>TURDUS MIGRATORIUS</i> ). <i>Robin E. Jung</i> .....	98
BROOD SIZE AND THERMAL ENVIRONMENT INFLUENCE FIELD METABOLISM OF NESTLING YELLOW-EYED JUNCOS. <i>Kimberly A. Sullivan and Wesley W. Weathers</i> .....	112
EFFECTS OF WIND AND ILLUMINATION ON BEHAVIOR AND METABOLIC RATE OF AMERICAN GOLD- FINCHES ( <i>CARDUELIS TRISTIS</i> ). <i>George S. Bakken and Kimberly F. Lee</i> .....	119
MITOCHONDRIAL-DNA VARIATION IN THE POLYTYPIC ALASKAN SONG SPARROW. <i>Matthew P. Hare and Gerald F. Shields</i> .....	126
PHYLOGENY AND RATES OF MOLECULAR EVOLUTION IN THE <i>APHELOCOMA</i> JAYS ( <i>CORVIDAE</i> ). <i>A. Townsend Peterson</i> .....	133
SHORT-TERM EFFECTS OF HURRICANE GILBERT ON TERRESTRIAL BIRD POPULATIONS ON JAMAICA. <i>Joseph M. Wunderle, Jr., D. Jean Lodge, and Robert B. Waide</i> .....	148
THE EVOLUTIONARY SIGNIFICANCE OF LIFETIME REPRODUCTIVE SUCCESS. <i>Bertram G. Murray, Jr.</i> .....	167
DNA-DNA HYBRIDIZATION EVIDENCE OF PHYLOGENETIC RELATIONSHIPS AMONG MAJOR LINEAGES OF <i>PARUS</i> . <i>Frederick H. Sheldon, Beth Slikas, Maureen Kinnarney, Frank B. Gill, E. Zhao, and Bengt Silverin</i> .....	173
IN MEMORIAM: MILTON BERNHARD TRAUTMAN, 1899-1991. <i>Harold F. Mayfield</i> .....	186
IN MEMORIAM: BERNHARD RENSCH, 1900-1990. <i>Ernst Mayr</i> .....	188
IN MEMORIAM: NORMAN FREDRICK SLOAN, 1934-1989. <i>Jerome A. Jackson</i> .....	189
IN MEMORIAM: JAMES T. TANNER, 1914-1991. <i>Ben B. Coffey, Jr.</i> .....	189
IN MEMORIAM: HERMANN RAHN, 1912-1990. <i>Carol M. Vleck</i> .....	190
SHORT COMMUNICATIONS AND COMMENTARIES	
Asynchronous polygyny in the House Wren ( <i>Troglodytes aedon</i> ). <i>Michael S. Quinn and Geoffrey L. Holroyd</i> .....	192
Basic technique for preparation of down for examination with the scanning electron microscope. <i>Roxie C. Laybourne, Beth Ann Sabo, and Ann Morningstar</i> .....	195
Sexual selection and the evolution of extravagant traits in birds: Problems with testing good-genes models of sexual selection. <i>Ian L. Jones</i> .....	197

Confusing models with tests in studies of sexual selection: Reply to Jones. <i>Richard Buchholz</i> .....	199
Comparing actual and random distributions of nearest neighbors. <i>Ronald P. Larkin</i> .....	202
Reply to Larkin. <i>Scott M. Pearson</i> .....	203
WILLIAM BREWSTER MEMORIAL AWARD, 1991: LEWIS W. ORING .....	205
ELLIOTT COUES AWARD, 1991: JOHN A. WEINS .....	206
BOOK REVIEWS. Edited by Bruce M. Beehler .....	208

## NUMBER 2

TWO SONG POPULATIONS OF THE NORTHERN PARULA. <i>Ralph R. Moldenhauer</i> .....	215
DIVING PATTERN AND PERFORMANCE IN NONBREEDING GENTOO PENGUINS ( <i>PYGOSCELIS PAPUA</i> ) DURING WINTER. <i>Tony D. Williams, Akiko Kato, John P. Croxall, Yasu Naito, Dirk R. Briggs, Steven Rodwell, and Tim R. Barton</i> .....	223
EFFECTS OF AGE, SEX, AND FAT LEVEL ON WING LOADING IN DARK-EYED JUNCOS. <i>C. Ray Chandler and Robert S. Mulvihill</i> .....	235
EFFECTS OF PARENTAL AGE ON HATCHING ASYNCHRONY, EGG SIZE AND THIRD-CHICK DISADVANTAGE IN WESTERN GULLS. <i>William J. Sydeman and Steven D. Emslie</i> .....	242
ONSET OF INCUBATION IN YELLOW WARBLERS: A TEST OF THE HORMONAL HYPOTHESIS. <i>Percy N. Hébert and Spencer G. Sealy</i> .....	249
STRUCTURE OF TURNING IN AIRBORNE ROCK DOVE ( <i>COLUMBA LIVIA</i> ) FLOCKS. <i>Harold Pomeroy and Frank Heppner</i> .....	256
WATER AND ENERGY LIMITATIONS ON FLIGHT DURATION IN SMALL MIGRATING BIRDS. <i>Nurit Carmi, Berry Pinshow, Warren P. Porter, and Jim Jaeger</i> .....	268
VARIABLE MATING SYSTEM OF A SEDENTARY TROPICAL DUCK: THE WHITE-CHEEKED PINTAIL ( <i>ANAS BAHAMENSIS BAHAMENSIS</i> ). <i>Lisa Guminski Sorenson</i> .....	277
REFLECTANCE SPECTRA OF PLUMAGE AREAS COLORED BY GREEN FEATHER PIGMENTS. <i>Jan Dyck</i> ..	293
OBSERVATIONS ON THE SYSTEMATICS, BEHAVIOR, AND VOCALIZATIONS OF "THAMNOMANES" <i>OCCIDENTALIS</i> (FORMICARIIDAE). <i>Bret M. Whitney</i> .....	302
EFFECTS OF VARIABLE HUMIDITY ON EMBRYONIC DEVELOPMENT AND HATCHING SUCCESS OF MOURNING DOVES <i>Glenn E. Walsberg and Catherine A. Schmidt</i> .....	309
LUNAR INFLUENCE ON FORAGING AND NESTING ACTIVITY OF COMMON POORWILLS ( <i>PHALAEOPTILUS NUTTALLII</i> ). <i>R. Mark Brigham and Robert M. R. Barclay</i> .....	315
MULTIPLE BROODING AND PRODUCTIVITY OF A NEOTROPICAL MIGRANT, THE BLACK-THROATED BLUE WARBLER ( <i>DENDROICA CAERULESCENS</i> ), IN AN UNFRAGMENTED TEMPERATE FOREST. <i>Richard T. Holmes, Thomas W. Sherry, Peter P. Marra, and Kenneth E. Petit</i> .....	321
LIVING OFF THE WAX OF THE LAND: BAYBERRIES AND YELLOW-RUMPED WARBLERS. <i>Allen R. Place and Edmund W. Stiles</i> .....	334
BIRD SPECIATION IN SUBTROPICAL SOUTH AMERICA IN RELATION TO FOREST EXPANSION AND RETRACTION. <i>Manuel Nores</i> .....	346
BIOCHEMICAL ANALYSIS OF RELATIONSHIPS OF MEDITERRANEAN <i>ALECTORIS</i> PARTRIDGES. <i>Ettore Randi, Alberto Meriggi, Rita Lorenzini, Gea Fusco, and Philip U. Alkon</i> .....	358
DIFFERENTIAL GROWTH PATTERNS OF NESTLING BROWN-HEADED COWBIRDS AND YELLOW-HEADED BLACKBIRDS. <i>Catherine P. Ortega and Alexander Cruz</i> .....	368
IN MEMORIAM: JAMES C. GREENWAY, JR., 1903-1989. <i>François Vuilleumier</i> .....	377
IN MEMORIAM: HENRY M. STEVENSON, 1914-1991. <i>Frances C. James</i> .....	380
IN MEMORIAM: OLLI JUHANI JÄRVINEN, 1950-1990. <i>Risto A. Väisänen</i> .....	381
IN MEMORIAM: DOMINIC LOUIS SERVENTY, 1904-1988. <i>Allen Keast</i> .....	382
SHORT COMMUNICATIONS AND COMMENTARIES	
Further information on the genetics of bill crossing in Crossbills. <i>Jeffrey G. Groth</i> .....	383

Estimating absolute densities of flying seabirds using analyses of relative movement. Larry Spear, Nadav Nur, and David G. Ainley .....	385
Cost of short flights in the Willow Tit measured with doubly-labeled water. Allan Carlson and Juan Moreno .....	389
Daily energy expenditure by Black-capped Chickadees ( <i>Parus atricapillus</i> ) in winter. William H. Karasov, Margaret C. Brittingham, and Stanley A. Temple .....	393
Exotic birds: A growing problem with no easy solution. Stanley A. Temple .....	395
BOOK REVIEWS. Edited by Bruce M. Beehler .....	398

### NUMBER 3

CONTINUOUS LAYING BY AMERICAN COOTS IN RESPONSE TO PARTIAL CLUTCH REMOVAL AND TOTAL CLUTCH LOSS. Todd W. Arnold .....	407
AGE-RELATED EFFECTS OF TESTOSTERONE, PLUMAGE, AND EXPERIENCE ON AGGRESSION AND SOCIAL DOMINANCE IN JUVENILE MALE SATIN BOWERBIRDS ( <i>PTILONORHYNCHUS VIOLACEUS</i> ). Ken Collis and Gerald Borgia .....	422
ESTIMATING CONSPECIFIC NEST PARASITISM IN THE NORTHERN MASKED WEAVER BASED ON WITH-IN-FEMALE VARIABILITY IN EGG APPEARANCE. Wendy M. Jackson .....	435
ESTIMATING AGE OF YOUNG BIRDS WITH A MULTIVARIATE MEASURE OF BODY SIZE. Scott G. Gilliland and C. Davison Ankney .....	444
ONTOGENESIS OF INTESTINAL NUTRIENT TRANSPORT IN DOMESTIC CHICKENS ( <i>GALLUS GALLUS</i> ) AND ITS RELATION TO GROWTH. Bryan S. Obst and Jared Diamond .....	451
SYSTEMATIC RELATIONSHIPS AMONG SOME ANATINI AS DERIVED FROM RESTRICTION-ENDONUCLEASE ANALYSIS OF A REPEATED DNA COMPONENT. James M. Tuohy, Kevin P. McHugh, and Siwo R. de Kloet .....	465
ROLES OF EGG MASS AND INCUBATION PATTERN IN ESTABLISHMENT OF HATCHING HIERARCHIES IN THE BLACKBIRD ( <i>TURDUS MERULA</i> ). Robert D. Magrath .....	474
EFFECTS OF FOOD ABUNDANCE AND MALE PARENTAL CARE ON REPRODUCTIVE SUCCESS AND MONOGAMY IN TREE SWALLOWS. Peter O. Dunn and Susan J. Hannon .....	488
VISIBLE MORNING FLIGHT OF NEOTROPICAL LANDBIRD MIGRANTS AT CAPE MAY, NEW JERSEY. David S. Wiedner, Paul Kerlinger, David A. Sibley, Paul Holt, Julian Hough, and Richard Crossley .....	500
PHYSIOLOGY OF PROLONGED FASTING IN GREATER SNOW GEESE ( <i>CHEN CAERULESCENS ATLANTICA</i> ). Claire Boismenu, Gilles Gauthier, and Jacques Larochelle .....	511
ESTABLISHING PATERNITY IN WHOOPING CRANES ( <i>GRUS AMERICANA</i> ) BY DNA ANALYSIS. Jonathan L. Longmire, George F. Gee, Cathy L. Hardekopf, and Graham A. Mark .....	522
EVOLUTION IN THE ROCK DOVE: SKELETAL MORPHOLOGY. Richard F. Johnston .....	530
PAIR COMPOSITION AND REPRODUCTIVE SUCCESS ACROSS A HYBRID ZONE OF CARRION CROWS AND HOODED CROWS. Nicola Saino and Simona Villa .....	543
CONFIDENCE OF PATERNITY AND PARENTAL EFFORT IN RAZORBILLS. Richard H. Wagner .....	556
COPULATION PATTERNS AND SPERM COMPETITION IN THE POLYGYNANDROUS SMITH'S LONGSPUR. James V. Briskie .....	563
FACTORS AFFECTING SURVIVAL OF ADULT LEAST AUKLETS ( <i>AETHIA PUSILLA</i> ) AT ST. PAUL ISLAND, ALASKA. Ian L. Jones .....	576
PREDATION ON THE EGGS AND NESTLINGS OF FLORIDA SCRUB JAYS. Ron Schaub, Ronald L. Mumme, and Glen E. Woolfenden .....	585
TO RAISE OR TO ABANDON A REDUCED CLUTCH: A THEORETICAL APPROACH ILLUSTRATED USING RINGED TURTLE-DOVES ( <i>STREPTOPELIA RISORIA</i> ). Carel ten Cate and Michael Taborsky .....	594
ANTIPREDATOR BEHAVIOR AND BREEDING ASSOCIATIONS OF BAR-TAILED GODWITS AND WHIMBRELS. Tore Larsen and Jostein Moldsvor .....	601
FEMALE-BIASED DELAYED DISPERSAL AND HELPING IN AMERICAN CROWS. Carolee Caffrey .....	609
SPERM STORAGE AND THE FERTILE PERIOD IN THE BENGAL FINCH. T. R. Birkhead .....	620

MITOCHONDRIAL DNA PHYLOGEOGRAPHIC DIFFERENTIATION AMONG AVIAN POPULATIONS AND THE EVOLUTIONARY SIGNIFICANCE OF SUBSPECIES. R. Martin Ball, Jr., and John C. Avise .....	626
SELECTION OF BILL SIZE PROPORTIONS IN THE COMMON ROSEFINCH ( <i>CARPODACUS ERYTHRINUS</i> ). Mats Björklund .....	637
IN MEMORIAM: JAMES R. KING, 1927-1991. Glenn E. Walsberg .....	643
IN MEMORIAM: L. RICHARD MEWALDT, 1917-1990. C. John Ralph .....	646
IN MEMORIAM: JAMES OSBORNE STEVENSON, 1908-1991. Harvey K. Nelson .....	648
IN MEMORIAM: HEINRICH DATHE, 1910-1991. Ernst Mayr .....	648
SHORT COMMUNICATIONS AND COMMENTARIES	
Ospreys use local enhancement and flock foraging to locate prey. Stephen P. Flemming, Peter C. Smith, Norman R. Seymour, and Robert P. Bancroft .....	649
Vocalizations in <i>Aptenodytes</i> penguins: Application of the two-voice theory. Patrice Robisson .....	654
Seasonal variation in gene frequencies in the House Sparrow ( <i>Passer domesticus</i> ). John M. Bates and Robert M. Zink .....	658
Experimental evidence for importance of male parental care in monogamous House Wrens. L. Scott Johnson, Marilyn S. Merkle, and L. Henry Kermott .....	662
Food storing by Mexican Chickadees and Bridled Titmice. Robert R. Hampton and David F. Sherry .....	665
Is there a positive relationship between body size and fecundity in Lesser Snow Geese? E. G. Cooch, D. B. Lank, R. F. Rockwell, and F. Cooke .....	667
Ptilochronology: A consideration of some empirical results and "assumptions." Thomas C. Grubb, Jr. ....	673
Ptilochronology: Accuracy and reliability of the technique. Mary E. Murphy .....	676
Furthering avian conservation in Latin America. Stuart D. Strahl .....	680
BOOK REVIEWS. Edited by Bruce M. Beehler .....	683

#### NUMBER 4

USE OF A NEW REPRODUCTIVE INDEX TO EVALUATE RELATIONSHIP BETWEEN HABITAT QUALITY AND BREEDING SUCCESS. Peter D. Vickery, Malcolm L. Hunter, Jr., and Jeffrey V. Wells .....	697
IS DENSITY AN INDICATOR OF BREEDING SUCCESS? Peter D. Vickery, Malcolm L. Hunter, Jr., and Jeffrey V. Wells .....	706
EXTRAPAIR FERTILIZATION IN MONOGAMOUS BULL-HEADED SHRIKES REVEALED BY DNA FINGER-PRINTING. Satoshi Yamagishi, Isao Nishiumi, and Chikashi Shimoda .....	711
HOW DO FRUGIVORES PROCESS FRUIT? GASTROINTESTINAL TRANSIT AND GLUCOSE ABSORPTION IN CEDAR WAXWINGS ( <i>BOMBYCILLA CEDRORUM</i> ). Douglas J. Levey and Gary E. Duke .....	722
CHANGES IN SURVIVAL RATES OF LESSER SNOW GEESSE WITH AGE AND BREEDING STATUS. Charles M. Francis, Miriam H. Richards, Fred Cooke, and Robert F. Rockwell .....	731
EFFECT OF GROWTH AND HATCHING ASYNCHRONY ON THE FLEDGING AGE OF BLACK AND RED KITES. Javier Viñuela and Javier Bustamante .....	748
CHITIN DIGESTION AND ASSIMILATION BY SEABIRDS. Sue Jackson, Allen R. Place, and Lindsay J. Seiderer .....	758
PLUMAGE VARIABILITY IN REDPOLLS FROM CHURCHILL, MANITOBA. Gilles Seutin, Peter T. Boag, and Laurene M. Ratcliffe .....	771
REPRODUCTIVE PATTERNS AND SOCIAL ORGANIZATION OF THE COMMUNAL GUIRA CUCKOO ( <i>GUIRA GUIRA</i> ) IN CENTRAL BRAZIL. Regina H. Macedo .....	786
PHYLOGEOGRAPHY OF MITOCHONDRIAL DNA IN TWO SPECIES OF WHITE-EYES IN AUSTRALIA. Sandie M. Degnan and Craig Moritz .....	800
CHARACTERISTICS AND CONSEQUENCES OF NEST-SITE FIDELITY IN WOOD DUCKS. Gary R. Hepp and Robert A. Kennermer .....	812
DIVING BEHAVIOR IN SURF SCOTERS AND BARROW'S GOLDENEYES. Guy Beauchamp .....	819
PHYLOGENETIC ANALYSIS OF AVIAN PARENTAL CARE. Mary C. McKittrick .....	828
FREQUENCY VARIATION IN SONGS OF BLACK-CAPPED CHICKADEES ( <i>PARUS ATRICAPILLUS</i> ). A. G. Horn, M. L. Leonard, L. Ratcliffe, S. A. Shackleton, and R. G. Weisman .....	847

DAILY MASS GAINS AMONG WOODLAND MIGRANTS AT AN INLAND STOPOVER SITE. <i>Kevin Winker, Dwain W. Warner, and A. R. Weisbrod</i>	853
ROLE OF HANDLING TIME IN SELECTION OF EXTRUDED FOOD MORSELS BY TWO GRANIVOROUS BIRD SPECIES. <i>Jeffrey F. Keating, Robert J. Robel, Albert W. Adams, Keith C. Behnke, and Kenneth E. Kemp</i>	863
HONEST ADVERTISEMENT IN FLIGHT DISPLAYS OF BOBOLINKS ( <i>DOLICHONYX ORYZIVORUS</i> ). <i>Monica H. Mather and Raleigh J. Robertson</i>	869
AVIAN FORELIMB MUSCLES AND NONSTEADY FLIGHT: CAN BIRDS FLY WITHOUT USING THE MUSCLES IN THEIR WINGS? <i>Kenneth P. Dial</i>	874
POLYMERASE-CHAIN-REACTION (PCR) ANALYSIS OF MICROSATELLITES—A NEW APPROACH TO STUDIES OF GENETIC RELATIONSHIPS IN BIRDS. <i>Hans Ellegren</i>	886
REPRODUCTIVE IMPLICATIONS OF EGG-SIZE VARIATION IN THE BLACK BRANT. <i>Paul L. Flint and James S. Sedinger</i>	896
IN MEMORIAM: DENNIS G. RAVELING, 1939–1991. <i>M. Robert McLandress</i>	904
IN MEMORIAM: RALPH WARREN DEXTER, 1912–1991. <i>Edward H. Burt, Jr.</i>	906
IN MEMORIAM: BRYAN STEVEN OBST, 1956–1991. <i>Thomas R. Howell</i>	906
IN MEMORIAM: HANS EDMUND WOLTERS, 1915–1991. <i>Karl-L. Schuchmann and Walter J. Bock</i>	907
IN MEMORIAM: MAURICE BROUN, 1906–1979. <i>Albert E. Conway</i>	908
IN MEMORIAM: RAMESH MAGANBHAI NAIK, 1931–1991. <i>Charles T. Collins</i>	909
IN MEMORIAM: LOUISE DE KIRILINE LAWRENCE, 1894–1992. <i>Marianne Gosztonyi Ainley</i>	909
SHORT COMMUNICATIONS AND COMMENTARIES	
Mating system of the Helmeted Manakin ( <i>Antilophia galeata</i> ) in central Brazil. <i>Miguel Ângelo Marini and Roberto Brandão Cavalcanti</i>	911
Experimental reintroduction of Red-cockaded Woodpeckers. <i>D. Craig Rudolph, Richard N. Conner, Dawn K. Carrie, and Richard R. Schaefer</i>	914
Specific status and nomenclature of <i>Hemitriccus minimus</i> and <i>Hemitriccus aenigma</i> . <i>Douglas F. Stotz</i>	916
Extensive folivory by Thick-billed Saltators ( <i>Saltator maxillosus</i> ) in southern Brazil. <i>Erik S. Munson and W. Douglas Robinson</i>	917
Weather-dependent kleptoparasitism and aggression in a raptor guild. <i>Ethan J. Temeles and Troy I. Wellicome</i>	920
Pterylography of birds-of-paradise and the systematic position of Macgregor's Bird-of-paradise ( <i>Macgregoria pulchra</i> ). <i>Mary H. Clench</i>	923
Differences in song and sexual dimorphism between Cuban and North American Red-winged Blackbirds ( <i>Agelaius phoeniceus</i> ). <i>Linda A. Whittingham, Arturo Kirkconnell, and Laurene M. Ratcliffe</i>	928
Intestinal transit: How can it be delayed long enough for birds to act as long-distance dispersal agents? <i>Mary H. Clench and John R. Mathias</i>	933
The insurance hypothesis and the theory of clutch size in birds and in invertebrates. <i>I. C. W. Hardy</i>	936
A comment: Estimating absolute densities of flying seabirds using analyses of relative movement. <i>Larry Spear, Nadav Nur, and David G. Ainley</i>	937
Erratum	938
BOOK REVIEWS. <i>Edited by Bruce M. Beehler</i>	939
ANNOUNCEMENTS	948
INDEX TO VOLUME 109. <i>Compiled by Stephanie A. Walker</i>	950



